

### ABSTRACT

Sand casting is an old art. In this molding process sand is compacted around a pattern and the pattern is removed, leaving a mold cavity the shape of the pattern. Molten metal can then be poured into the cavity to form the object. To increase the life of the mold, and to make  
5 removal of the pattern easier, the pattern must be coated with a protective material. Despite many available pattern coating compounds, mineral seal oil, and a mixture of mineral seal and clay, have been the commercial choices. Hereby the advantages of mineral seal oil-clay pattern coating compositions are retained without its detriments by utilizing a vegetable oil base in a pattern coating composition to replace some or all of the mineral seal oil to provide  
10 biodegradable coating compositions with reduced VOC content.

209568 v2